

REMARKS

Applicant has amended claims 1, 8, and 9 to clarify novel and nonobvious features of the claimed gas oil fraction hydrotreatment process. The language of the amended claims is supported by the as-filed claims and specification, e.g., paragraphs [0013] and [0041]. No new matter has been introduced.

Applicant respectfully traverses the 35 U.S.C. § 103(a) rejection of claims 1-4, 6, 8, and 9 over U.S. Patent No. 6,217,748 to Hatanaka et al. ("Hatanaka") in view of U.S. Patent No. 5,741,414 to Waku et al. ("Waku").

To establish a prima facie case of obviousness, the prior art reference or references when combined must teach or suggest all of the claim limitations. M.P.E.P § 2143.

Amended claims 1, 8, and 9 recite, among other things, "subjecting said feed oil to hydrotreatment . . . to simultaneously obtain a gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume."

Hatanaka does not disclose or suggest at least the above feature of claims 1, 8, and 9. Hatanaka, in contrast, discloses at col 3., ll. 1-11 a process comprising (1) a first step for hydrodesulfurizing a sulfur-containing diesel gas oil feedstock, (2) a second step for separating the hydrodesulfurized diesel gas oil feedstock into light fraction and heavy fraction, (3) a third step for hydrodesulfurizing further the separated heavy fraction, and (4) a fourth step for mixing the further hydrodesulfurized heavy fraction and the separated light fraction. Hatanaka, however, neither discloses nor suggests simultaneous desulfurization and dearomatization.

Waku does not remedy the above-mentioned deficiency of Hatanaka. Waku in contrast, discloses at col. 2, ll. 9-22, a process for desulfurization of distilled petroleum comprising a first step of "putting distilled petroleum into contact with hydrogen gas in the presence of a hydrotreating catalyst to reduce the sulfur concentration to not higher than 0.05 wt%," and a second step of "reducing the aromatic compound concentration in the presence of a noble metal type catalyst." Waku further discloses in col. 2, ll. 43-49 that desulfurization takes place in the first step and the aromatic content is reduced in the second step, and that the operation of separating the gas and the liquid components is repeated at least twice between the first step and the second step.

In view of the above disclosures, neither Hatanaka nor Waku, viewed alone or in combination, discloses or suggests a process for gas oil hydrotreatment in which dearomatization occurs simultaneously with desulfurization.

Since the cited references, alone or in combination, fail to teach or suggest all of the claim features, no *prima facie* case of obviousness has been established with respect to amended claims 1, 8, and 9. See M.P.E.P. § 2143.

In view of the above amendments and remarks, independent claims 1, 8, and 9 are allowable over Hatanaka in view of Waku. Claims 2-4, and 6 depend from amended claim 1, and incorporate all of the elements of claim 1. Claims 2-4, and 6 therefore are allowable over the cited references at least due to their dependence from claim 1.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge
any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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